

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated November 2, 2007. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-23 are under consideration in this application. Claims 1 and 12 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicants' invention. All the amendments to the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Prior Art Rejection

Claims 1-5 and 7-23 were rejected under 35 U.S.C. §102(b) as being anticipated by Chellis et al. (US 6,901,446), and claim 6 was rejected under 35 U.S.C. §103 (a) as being unpatentable over Chellis '446 in view of Gerszberg et al. (US 6,385,693). These rejections have been carefully considered, but are most respectfully traversed, as more fully discussed below.

A load distribution method of the present invention is adopted by a client-server system 1100 (for example, the embodiment depicted in Fig. 1 or Fig. 11) comprising a plurality of clients 100 and a server cluster, said server cluster including a plurality of servers 800 each used for processing requests made by said clients 100 and allows a number of said servers 800 to be changed dynamically. The method comprises: detecting the number of servers (by a server-count detection function 401 of the load control program 400 of Figs. 1-2 in one client 100; [0063] of corresponding US Pub. No. 2005/0038890; Step 1202 in Fig. 5) composing said server cluster by one of the clients; setting an allocation of requests (by a connection distribution function 301 of a load distribution function 300 if the client 100 in Figs. 1 & 9; *"The connection distribution function 301 refers to the connection management table 302 in order to determine a connection is to be allocated to the client program 200 and records the allocation of the connection in the connection management table 302 to reflect the reuse of the connection in the connection management table 302."* [0084]) transmissible out to a newly added server 900 at a value smaller than that set for each of the remaining

servers in the server cluster by said one client, right after detecting an increase in the number of servers (“*The control described above can be executed by properly defining a load control function 411 for computing the value of a weight assigned to the newly added server 900. To be more specific, the load control function 411 is defined so that a small weight is assigned to the newly added server 900 right after the addition of the newly added server 900 to the server-cluster system 1100. Thereafter, the weight is increased step by step with the lapse of time.*”[0049]; Step 1504 in Fig. 10; [0088]); and transmitting out requests ([0084]) to said servers on the basis of said set allocation from said one client to the server cluster.

The invention of claim 12 is directed to the client server system of claim 1.

“When a server 900 is newly added to the server-cluster system 1100, to which the client 100 transmits out a request, and hence changes the configuration of the server-cluster system 1100 in the client-server system implemented by the first embodiment of the present invention, the number of requests transmissible out to the newly added server 900 is initially set a value small in comparison with that set for each already existing server 800. In this way, it is possible to avoid generation of a long queue of requests each waiting for a processing turn in the newly added server 900 and increase the efficiency of processing in the entire server-cluster system 1100 ([0088]).” The invention effectively shortens the time that the newly added server 900 takes to process requests, when the new server is added to the server-cluster system ([0024]).

Applicants respectfully submit that none of cited prior art references teaches or suggests such a step of “setting an allocation of requests transmissible out to a newly added server 900 at a value smaller than that set for each of the remaining servers in the server cluster **by said one client**, right after detecting an increase in the number of servers” as the present invention.

In contrast, Chellis has a resource allocator 30 (rather than a “client”) execute a reallocation request by a consumer 20 for migrating a number of users allocated to servers/rescores 25. The resource allocator 30 is set between users and servers (Figs. 1-2). Chellis does not have the client perform the necessary steps for allocating resources as the present invention. Therefore, Chellis fails to teach “setting an allocation of requests transmissible out to a newly added server 900 by said one client, right after detecting an increase in the number of servers” as the present invention.

Furthermore, Chellis’ resource allocator 30 deals with allocation requests without processing (col. 10, lines 3-9) by adjusting a number of issuing allocation requests as the present invention. Chellis simply does not “set an allocation of requests transmissible out to a

newly added server 900 at a value smaller than that set for each of the remaining servers in the server cluster” as the present invention. Gerszberg fails to compensate for Chellis’ deficiencies.

Although the first embodiment of the present invention (Fig. 1) further provides a management server 600 connected to the client 100 and the server-cluster system 1100, the management server 600 of the present invention is different from Chellis’ resource allocator 30. The management server 600 of the present invention only acquires and manages information on the servers of the cluster and information on a configuration of services ([0045]), but not to “set an allocation of requests transmissible out to a newly added server 900 at a value smaller than that set for each of the remaining servers in the server cluster” as the client of the present invention. The management server 600 of the present invention does not perform all functions of Chellis’ resource allocator 30, but only analyzes load information based on collected reports periodically received from the agent programs 1000 in the servers 800 and makes decisions to add a new server 900 to the server-cluster system 1100 and detach an already existing server 800 from the server-cluster system 1100 ([0046]). Instead of employing the management server 600, the function of the management server 600 can also be incorporated in the server-cluster system 1100 or each of the clients 100 ([0047]; e.g., the Embodiment of Fig. 11). The present invention has the client (but not the management server 600) “set an allocation of requests transmissible out to a newly added server 900 at a value smaller than that set for each of the remaining servers in the server cluster.”

Applicants contend that the cited references and their combinations fail to teach or disclose each and every feature of the present invention as recited in at least independent claims 1 and 12. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

Conclusion

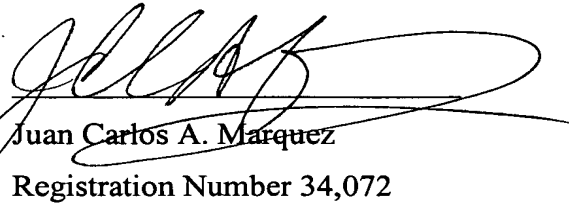
In view of all the above, clear and distinct differences as discussed exist between the present invention and the prior art references upon which the rejections in the Office Action rely, Applicant respectfully contends that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and telephone number indicated below.

Respectfully submitted,

Stanley P. Fisher

Registration Number 24,344

A handwritten signature in black ink, appearing to read 'JCM', is written over a horizontal line.

Juan Carlos A. Marquez

Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, Virginia 22042
(703) 641-4200

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SPF/JCM/JT